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Abstract

This manual, specifically designed to accompany formal instruction in the writing of behavioral objectives, is also intended for use by individuals desiring knowledge of behavioral objectives and behavioral domain concepts. The introductory chapter on rationale for use of behavioral objectives outlines an instructional cycle designed to aid teachers in making curricular decisions and in preparing evaluative measures of pupil progress. The major section on the behavioral domains includes (1) discussion justifying teachers' concern with the classification of behavior, (2) presentation of the hierarchical structure of the cognitive, affective, and psychomotor domains with examples of behavioral objectives for each class or level in the taxonomy, and (3) illustration of the interrelationship of the three domains. This section is supplemented with a condensed version of the taxonomy of educational objectives in each domain: cognitive (Bloom, 1956), affective (Krathwohl, 1964), and psychomotor (Simpson, 1966). Other chapters deal with "entering behavior," that which a learner should have acquired or be able to demonstrate before he can perform that called for in an objective; with the actual formulation of behavioral objectives with three components: the doer, the overt behavior (action verb), and the given conditions and standards; and with the classroom application of behavioral objectives. (JS)

ED033881

THE WRITING AND USE OF BEHAVIORAL OBJECTIVES

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
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June, 1969

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P R E F A C E

Drs. Kathy Bemis and Glenn Schroeder, SWCEL Research Associates, have in this monograph captured an important concept that has for too long been underplayed. We have had the tendency in education to avoid being specific about what we had expected from students; consequently we do not have performance criteria against which to assess student progress. The resultant "cumulative ignorance" has been devasting for students and teachers alike.

In this monograph, the authors practice what they preach; that is, they use a performance or behavioral guide to ascertain whether or not teachers are meeting desired goals. The teachers are expected to make two kinds of transfers from the knowledge inherent in the manual:

1. To define behavioral objectives for students in terms of other curricular areas, in addition to the Laboratory developed Language Arts materials, and

2. To define behavioral objectives for the teacher's own performances.

Until we can determine what we expect from students and teachers, little significant contributions in education are likely to be made. This specificity to which we refer is not an easy task, but it is a thrust which must be made if schools are to be significantly improved.

Research at SWCEL has indicated that there are truly differences in learning styles among the students in the target populations with which the Laboratory works--Amerindian, Spanish-speaking and Negro children. By identifying specific behavioral objectives that are relevant for the various

ethnic youngsters and by determining how classroom management strategies can be used to motivate children, we believe much improvement can result.

James L. Olivero
Director

Albuquerque, New Mexico
June 1969

FOREWORD

This manual is designed to accompany formal instruction on the writing of behavioral objectives. However, the authors feel that any reader may improve his knowledge of the concepts of behavioral objectives, the three domains of behavior (cognitive, affective, and psychomotor), and entering behavior by reading this volume. Hopefully, the reader will obtain a clearer picture of how these concepts interrelate and how they can be helpful in the improvement of instruction.

This manual is an interim device to fill the gap between what is now available in this field and the development of the SWCEL, self-instructional, multi-media program on the writing of behavioral objectives.

The terminal goal and behavioral objectives for those receiving formal instruction with this manual are as follows:

TERMINAL GOAL:

The learner will demonstrate his understanding of the subject matter taught by: (1) stating the entry skill necessary to attain the specific behaviors on the part of the performer, (2) writing behavioral objective, and indicating the dominant domain (cognitive, affective, psychomotor) of the behavior.

BEHAVIORAL OBJECTIVES:

1. Given seven behavioral objectives, the learner will correctly identify the dominant domain in at least four of the objectives.

2. Given a specified terminal goal for a student, the learner will write a brief description of the entry behavior he may display in each of the three domains.

3. The learner will demonstrate knowledge of the three components of a behavioral objective by writing a behavioral objective which has the following components in it:

a. a learner (doer)

b. an observable behavior

c. given conditions and a standard (performance criterion).

K. A. B. & G. B. S.

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Any theory about education is closely related to the purposes of education. In America we are determined that these purposes be in accordance with our democratic traditions, placing emphasis upon the unique and precious nature of each human being. The fundamental aims and objectives of education in this country, therefore, must find their source and their strength in the minds and hearts of the people who are served by the schools. Beyond this, there are practical considerations involved in selecting aims and objectives. We must have means at hand to determine whether our objectives can be attained, whether the techniques by which we strive to attain them are effective, and whether all possibilities for improvement have been adequately explored.

Nolan C. Kearney (1953)

INTRODUCTION

**** **** ****

It is my impression that no one really likes the new. We are afraid of it. It is not only as Dostoyevsky put it that "taking a new step, uttering a new word is what people fear most." Even in slight things the experience of the new is rarely without some stirring of foreboding.

Eric Hoffer (1959)

**** **** ****

The importance of stating educational goals in specific behavioral terms has been increasingly emphasized during the last decade. Teachers have said, "I know what my goals for my students are. I want them to be able to get along with each other. I want them to seek knowledge. They must learn to read, to write, to count . . ." This list of <u>verbal</u> goals could go on and on. Students in colleges of education throughout America are told about the wisdom of creating objectives for the pupils. Yet, it is the rare teacher who lays out her teaching program in behavioral terms.

The <u>idea</u> of behavioral objectives is not a new one. What is new is the idea of teachers actually writing lesson plans which include behavioral objectives. Although teachers have various goals for their students in mind, "taking a new step" appears awesome to the teachers. This volume is designed to dispel that feeling and disseminate the fact that behavioral objectives develop clearly defined goals for instruction and evaluation.

CHAPTER I

THE RATIONALE FOR USING BEHAVIORAL OBJECTIVES

Not only does the primary responsibility for educating America's children rest with the teacher, but so does the burden of determining what the children should learn, why they should learn it, how they should learn it, and even if they will learn it.

The teacher must make judgments about how to present subject materials to his pupils. This, of course, implies that he has some idea of what his specific, educational goals are for the children. In making judgments, the teacher must not only decide what subject matter he will teach, but he must also define the desired outcomes of the educational process. These decisions not only have implications for pupil learning, commonly known as "book learning," but also have broad implications for those outcomes of instruction which emphasize emotions or degree of acceptance or rejection.

The teacher who denotes objectives for pupil learning finds it easier to make curricular decisions, and to prepare evaluative measures of the pupils' progress.

The Instructional Cycle shown in Figure 1 depicts how the use of behavioral objectives facilitates instruction. The teacher specifies the desired behavior that the learners should demonstrate at the completion of instruction (terminal behavior). The terminal behavior is analyzed to determine the kinds of behavior the learner must acquire to perform the desired terminal behavior. These are expressed in the

INSTRUCTIONAL CYCLE:

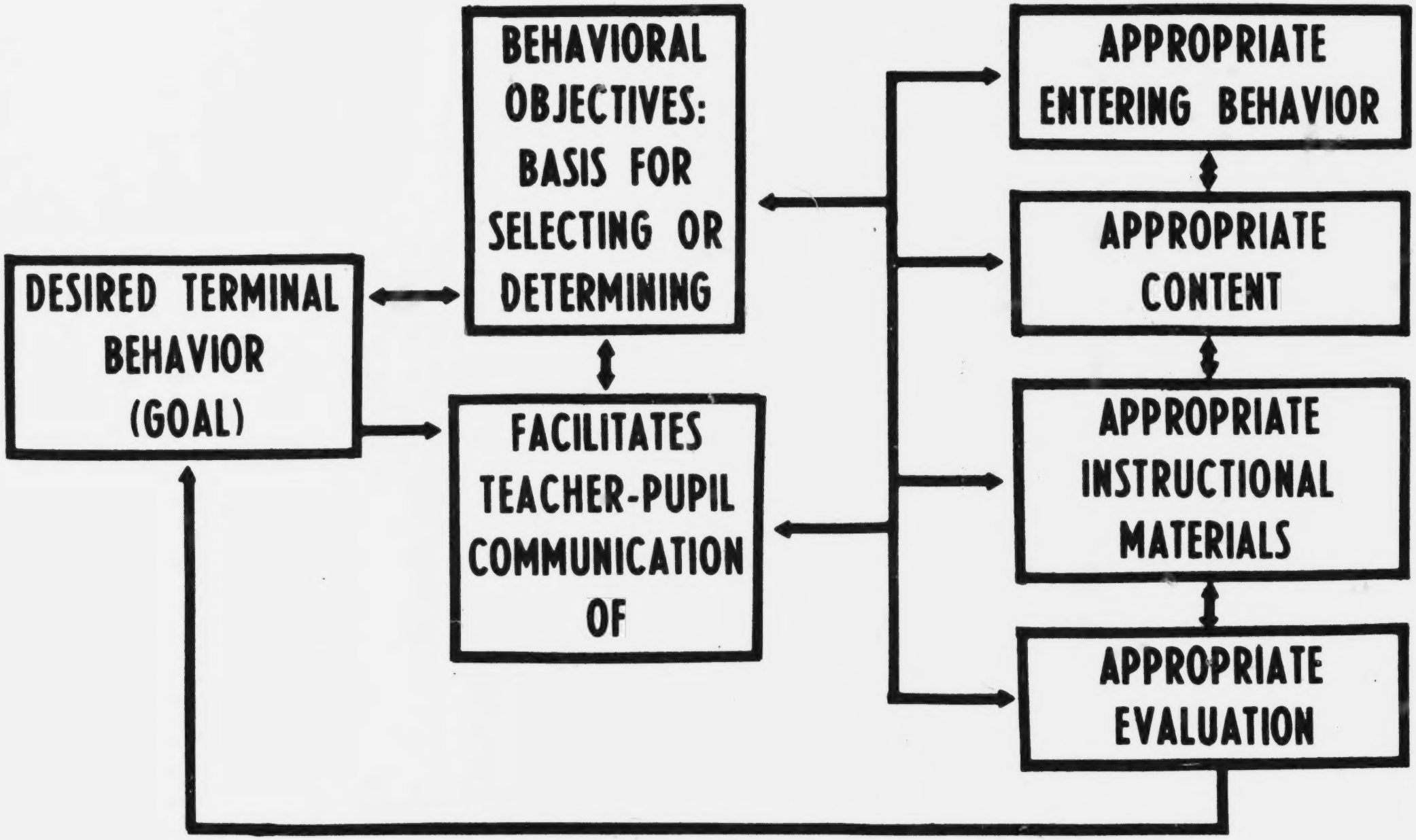


Figure 1. The Instructional Cycle.

in the form of Behavioral Objectives. This expression facilitates the communication between the teacher and pupil of:

1. the desired behavior
2. the appropriate behaviors the learner should have already acquired (Entering Behavior)
3. the appropriate content to be taught
4. the appropriate evaluation.

The specified terminal behavior and behavioral objectives also provide the teacher with the necessary information to determine relevant content, instructional materials, and methods of evaluation. Content, materials, and evaluation that have no bearing on the desired behavior can be eliminated.

Assessment of the entering behavior of the learners may reveal that the terminal behavior and the behavioral objectives are unrealistic. The learners may not have the necessary skills to meet the objectives. In that case, new objectives must be written and appropriate instruction be given to attain the new objectives. Once the learners have attained the new objectives, the original objectives become realistic.

All of the components in Figure 1 interact and become modifiers of each other.

Before accurate and unbiased evaluation of the terminal objective is possible, specific, overt behavior, (because it is quantifiable) must be designated.

Mager (1962) defines an objective as:

> ...an intent communicated by a statement describing a proposed change in a learner--a statement of what the learner is to be like when he has successfully completed a learning experience. It is a description of a pattern of behavior (performance) we want the learner to be able to demonstrate.

When teachers begin to rely upon behavioral objectives, vague

intuitive and subjective interpretations of pupil achievement will be minimized, permitting relatively precise evaluations. Essentially this procedure involves specification of the fundamental operations (including instruments, manipulations, measurements of recording procedures used in the process of observation, etc.) by which the teacher may potentially discern the presence or absence of the phenomenon denoted by a concept.

The first question the teacher must ask is, "What is it I want to measure?" Once this has been defined, the specification of operations the students must perform should follow. For example, if students are expected to memorize a passage or list of words, it will first be necessary to operationally define what is meant by memorization (e.g., does it involve verbal recitation or written response?) Then a quantitatively designated performance criterion must be set to maximize objectivity and minimize alternate explanations of the empirical outcomes. In this way, the teacher lists expected pupil performance by objectively specifying those fundamental operations that students are to perform to accomplish the task or criterion specified.

Mager (1962) has compiled the following four criteria for writing behavioral objectives which the teacher might use as a starting point:

1. An instructional objective describes an intended outcome rather than a description or summary of content.

2. A characteristic of a usefully stated objective is that it is stated in behavioral, or performance, terms that describe what the learner will be <u>doing</u> when demonstrating his achievement of the objective.

3. The statement of objectives for an entire program of instruction will consist of several specific statements.

4. The objective which is most usefully stated is one which best communicates the instructional intent of the person selecting the objective.

**** **** ****

Objectives are not only the goals toward which the curriculum is shaped and toward which instruction is guided, but they are also goals that provide the detailed specification for the construction and use of evaluative techniques.

Bloom (1956)

CHAPTER II

THE THREE DOMAINS: COGNITIVE, AFFECTIVE AND PSYCHOMOTOR

It has been found that most of the objectives stated by teachers, as well as those found in the literature, may be placed rather easily in one of three major domains or classifications: cognitive, affective, and psychomotor.

Educational objectives may be specified in two ways. One method is to define the objective in behavioral terms. The other is to place an objective within a larger context which locates it along a continuum of internalization from lowest to highest. The latter method was employed in developing the hierarchical structure of the three domains.

WHY SHOULD TEACHERS BE INTERESTED IN THE THREE DOMAINS?

Knowledge of the three Domains is important because all behavior contains a level or levels of each Domain. One Domain may be dominant in a given behavior, but the others are present and interacting. It is impossible to specify a behavior of a school child as being entirely cognitive, entirely affective, or entirely psychomotor. Additionally, the three domains are structured on the basis of hierarchical levels of behavior, each level being of a higher order than the one below it. Knowledge of this structure will help teachers identify the level of behavior exhibited by students. The teacher can design activities that help students exhibit higher orders of behavior.

COGNITIVE DOMAIN

The idea for a classification system of educational objectives was

initiated at a meeting of college examiners attending the 1948 American Psychological Association convention in Boston. Because educational objectives provide the basis for building curricula and tests and represent the starting point for much educational research, the group believed that such taxonomies would lead to increased communication among professional educators.

A committee was formed to organize and write a taxonomy on cognitive educational goals. The result was a volume entitled Taxonomy of Educational Objectives, Handbook I: Cognitive Domain, ed. Benjamin S. Bloom. (1956)

Objectives which deal with recall or recognition of knowledge and development of intellectual abilities and skills are classified in Handbook I: Cognitive Domain (Bloom, 1956).

The classification scheme is described and illustrated. Bloom classifies the intended behavior of the students--the ways in which individuals are to think as the result of participating in some unit of instruction.

Bloom (1956) notes that intended behaviors specified by educational objectives

> "do not necessarily include many of the behaviors which psychologists are interested in classifying and studying. One reason is that the intended behaviors represent the social goals imposed upon youngsters by their society or culture. Thus, the intended or desired behaviors included in educational objectives usually do not include undesirable or abnormal behaviors which are socially disapproved. Similarly, certain natural or unsocialized behaviors which might be of interest may fall outside the categories of the taxonomy."

The taxonomy of behavioral objectives in the cognitive domain contains six classes or levels of cognition:

1. Knowledge--recall appropriate material.

2. Comprehension--purposeful organization.

3. Application--concrete use of abstractions.

4. Analysis--express the relationships between ideas.

5. Synthesis--combine ideas to form new idea(s).

6. Evaluation--make quantitative and qualitative judgments.

A condensed version of the Taxonomy of Educational Objectives (Bloom 1956) appears as Appendix A of this volume. A graphic representation of the various levels appears in Figure 2.

During the 1967-68 school year, SWCEL worked with eight first-grade teachers. They attempted to place their objectives within the cognitive domain classification scheme. Examples of these objectives as developed by these teachers are listed by curricular area and class level within the cognitive domain. The specification of a "doer" is implicit although it is a necessary component of a behavioral objective.

READING SKILLS

1. Knowledge

   Repeat a rhyme

2. Comprehension

   Select a picture that answers a question

   Correctly match words with pictures

   Build the correct story title with word cards

3. Application

   Select a picture that illustrates the story

   Read a page silently to find out specific information

4. Analysis

   Tell a story in sequence

   Tell whether sentences are related to the story

HIERARCHICAL STRUCTURE OF THE LEVELS OF THE COGNITIVE DOMAIN:

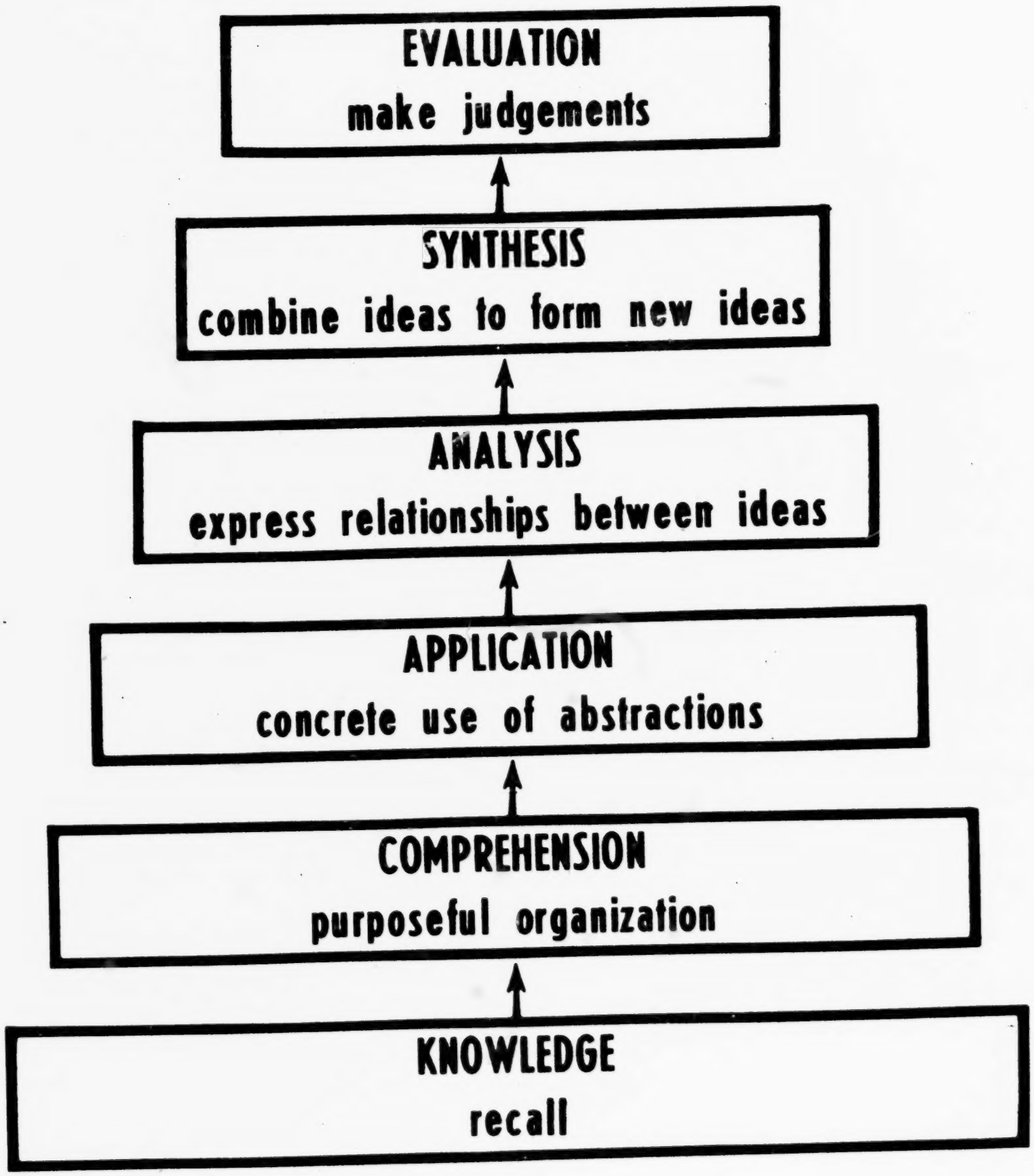


Figure 2. The Hierarchical Structure of the Levels of the Cognitive Domain.

Classify stories

5. Synthesis

Act out a story

Predict what might happen after the end of the story

Give a title for the story

6. Evaluation

Determine whether a sentence is a true statement

MATH SKILLS

1. Knowledge

Draw a given number of objects

Point to number words

Describe the ordinal position of an object

2. Comprehension

Match number word with set of objects

State coordinates plotted by another individual

Tell how many more there are in one set than another

3. Application

Complete number sentences

Give the rule for naming numbers based on tens and ones

4. Analysis

Break up objects into groups of tens and ones

Tell how many tens and ones are in a number

SCIENCE AND SOCIAL STUDIES SKILLS

1. Knowledge

Use proper terminology

Tell what he knows about an object

2. Comprehension

Say the name of an object by using all senses except sight

State the differences between two items

3. Application

Manipulate scientific equipment correctly

Describe a picture he drew to illustrate a scientific fact

4. Analysis

Classify objects according to class-determined criteria

Determine certain existing conditions through observation

Tell what he discovered from doing the experiment

5. Synthesis

Act out home activities

Suggest ways to overcome a problem

6. Evaluation

Solve a problem

MUSIC AND ART ACTIVITIES

1. Knowledge

Sing previously taught songs

Participate in finger plays

2. Comprehension

Play a rhythm band instrument in time with music

Tell which part of a song is high and which part is low

Listen for specific sounds on a record

3. Application

Sing the high notes of a song upon request

4. Analysis

Manipulate flannel board cutouts to tell a story

Decide what materials he needs for an art project

5. Synthesis

Dramatize a song

Use a variety of media

PHONICS SKILLS

1. Knowledge

Give the sounds of a letter

Say the word on a phonetic picture card

2. Comprehension

Form blends by combining a consonant and vowel sounds

Circle a specific letter in a word that begins with that letter

3. Application

Name things that begin with specific sounds

Write a specific letter under pictures that begin with that sound

4. Analysis

Listen for a vowel in a word and classify that word

Discuss a picture

WRITING SKILLS

1. Knowledge

Write words containing a specific letter

Write specific groups of letters

2. Comprehension

Write short sentence patterns containing a specific letter

Write sentence strips to be used in booklet

3. Application

Take dictation

AFFECTIVE DOMAIN

> The role of the teacher is that of a conditioner of emotional reactions. The object of teaching is to condition favorable reactions to subject matter. (Bugelski, 1964)

**** **** ****

> Affective: Objectives emphasize a feeling tone, an emotion, or a degree of acceptance or rejection. Affective objectives vary from simple attention to selected phenomena to complex but internally consistent qualities of character and conscience. We found a large number of such objectives in the literature expressed as interests, attitudes, appreciations, values, and emotional sets of biases. (Krathwohl, et al. 1964)

The difficulty of compiling a taxonomy of affective objectives is evident when one attempts to seek evaluative material in the affective domain. Efforts to measure achievement for affective objectives become frustrating because they present technical problems of assessment. A child soon learns which affective responses will be rewarded by the teacher and which responses will be punished. A child may profess an interest in a subject or in his fellow students, but it is difficult to determine the difference between a "spontaneous" response and one made only to please the teacher.

Another problem inherent in the development of a taxonomy of the affective domain is that our schools emphasize choice and free decision. Any attempts at dealing with feelings and emotions seem alien to the educational goals in a democratic society.

However, the classroom teacher is well aware that learning (cognitive gain) will not occur unless the child is responding, receiving, and reacting to the teacher and to other environmental stimuli. To teach a lesson, the teacher must gain the pupils' attention. They must be listening to and perceiving what she is attempting to convey.

It is clear that the compilation of objectives for affective

behavior is just as important, perhaps even more crucial, than the establishment of objectives for cognitive behavior. The interrelationship between the cognitive and affective domains becomes apparent to anyone who has ever attempted to convey information--to address a group or to teach a class. Unless you have the students' attention, they may not receive, or learn, what you are attempting to communicate.

The teacher on the first day of a new semester faces this problem dramatically. Many of us have said, "If you don't gain control of your students the first day, you might as well give up and go home. You've lost them."

The Taxonomy of Educational Objectives, Handbook II: Affective Domain, by Krathwohl (1964) is modeled after Handbook I: Cognitive Domain. A condensed version of the Affective Domain appears as Appendix B. A graphic representation appears on Figure 3.

The taxonomy of behavioral objectives in the affective Domain contains five levels or classes of affect:

1. Receiving--perceive stimulus
2. Responding--do something about stimulus
3. Valuing--committed to stimulus
4. Organization--form value system
5. Ideals--total philosophy

The importance of defining affective objectives for educational goals is recognized by leading educators. To determine what goals teachers have for their pupils in the affective domain, SWCEL requested that a number of teachers state their terminal, affective goals. The teachers responded to the request:

HIERARCHICAL STRUCTURE OF THE LEVELS OF THE AFFECTIVE DOMAIN:

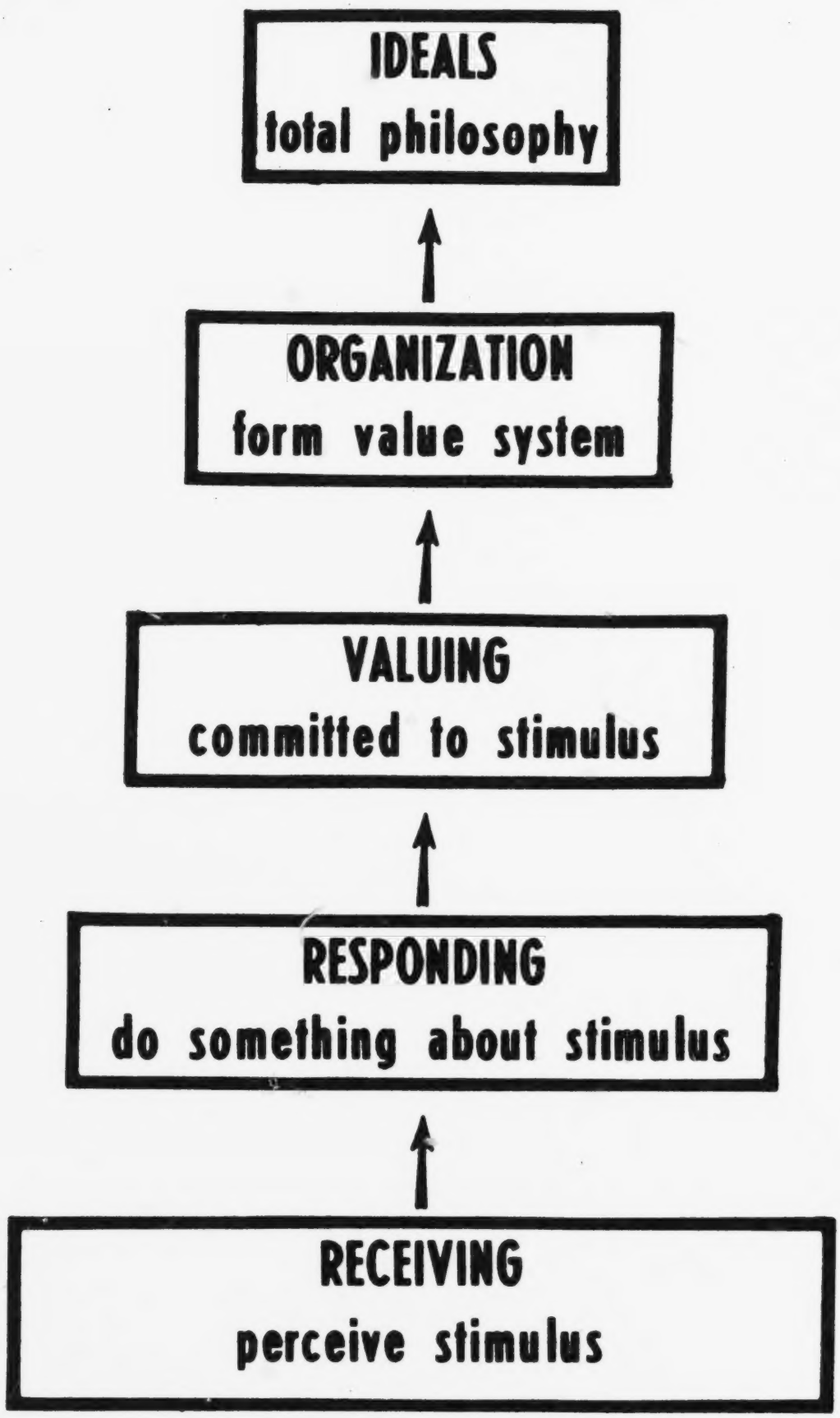


Figure 3. The Hierarchical Structure of the Levels of the Affective Domain.

List any behaviors you would suggest as possible goals that your children should demonstrate at the end of their first year in school (affective domain).

Although it is difficult to observe the manifestations of affect, the teachers listed behaviors which they thought might be indicative of specific goals for the children. Some of these follow.

"Each child will:

demonstrate in his interpersonal relations that he is aware of others (his peers, teachers, parents, friends), their abilities and inabilities by listening to others, working with others (cooperation), being tolerant of others, and ultimately being affectionate and sensitive to the needs, problems, and joys of others.

work individually as directed.

cooperate with a group by complying with directions and group norms.

display pride in his accomplishments by asking to have his work displayed.

enjoy school and express this feeling.

voluntarily help himself and others.

accept responsibilities by completing designed tasks.

partake in and enjoy self-expression in reading, art, music, drama, etc.

help in group planning and conform to group rules.

attempt a new and different task.

accept failure and try again.

spontaneously read books for enjoymnet and request and/or comply to storytime activities.

express and defend his own viewpoint."

These goals are important and worthwhile, but some are not precisely defined behaviors which can be seen or measured. This does not, however, diminish their worth as pupil goals in the affective domain. For this reason, they are included. It is necessary to define these

goals operationally for a specific classroom situation. It should be noted that the standard implied as an either/or situation in which the child either displays the behavior or he does not.

Although the affective domain is difficult to measure, teacher awareness of its implications is extremely important. An example is demonstrated in the self-fulfilling prophecy phenomenon and the concept of cultural differences.

PSYCHOMOTOR DOMAIN

**** **** ****

> To meet life demands, an individual's acquiring of adequate motor skill is as important as is his mastery of abstract ideas. There are few situations in which both are not needed.
>
> Crow and Crow (1956)

**** **** ****

Those who proposed taxonomies for the cognitive and affective domains indicated they had no special interest in the development of a classification system for educational objectives in the psychomotor domain. They recognized the existence of the psychomotor domain, but found so little research on it that they decided not to develop a classification at that time.

Continuation of this lack of interest led Simpson (1966) to seek a grant from the U. S. Office of Education to develop an adequate taxonomy.

Preliminary investigations led to the conclusions that there is a hierarchy among the three domains. The cognitive domain, though certainly very complex, is, in a sense, somewhat "purer" than the other two domains. That is, cognition can take place with a minimum of motor activity. Also, feeling may not be greatly involved, although it would seem reasonable to assume some degree of affect. The affective domain

necessarily involves considerable cognition as well as feeling. And, the psychomotor domain, as implied in name, involves cognition and motor activity, as well as affective components involved in the willingness to act. This hierarchy of interaction of all three domains, from the cognitive to the affective to the psychomotor, results in a special complexity in developing a classification system for this last domain.

A classification system that is not taxonomic would have merit in the study of educational objectives. One that is taxonomic, however, should prove more valuable in determining the relative difficulty of achieving the objectives, and as an aid in determining sequence of learning experiences. The problem is one of arriving at a basis for determining the relative difficulty or amount of skill involved in carrying out a motor activity.

Simpson (1966) reported that her work in this area resulted in looking at educational objectives in a new light. She became aware that many objectives that are <u>assumed</u> should be <u>stated</u> to provide for greater clarity and to insure their consideration in the selection of learning experiences and content. Another important step to be taken is to look critically at the relationships among the three domains. It is readily apparent that the domains are closely related and that a single educational objective might have a particular significance in one domain and another in another domain. For example, at the <u>mental-set</u> level in performing a motor act, knowledge is required; hence, an objective that "fits" this level also would fit into the cognitive domain and could be classified there.

A condensed version of the Psychomotor Domain appears as Appendix C and a graphic representation appears in Figure 4.

HIERARCHICAL STRUCTURE OF THE LEVELS OF THE PSYCHOMOTOR DOMAIN:

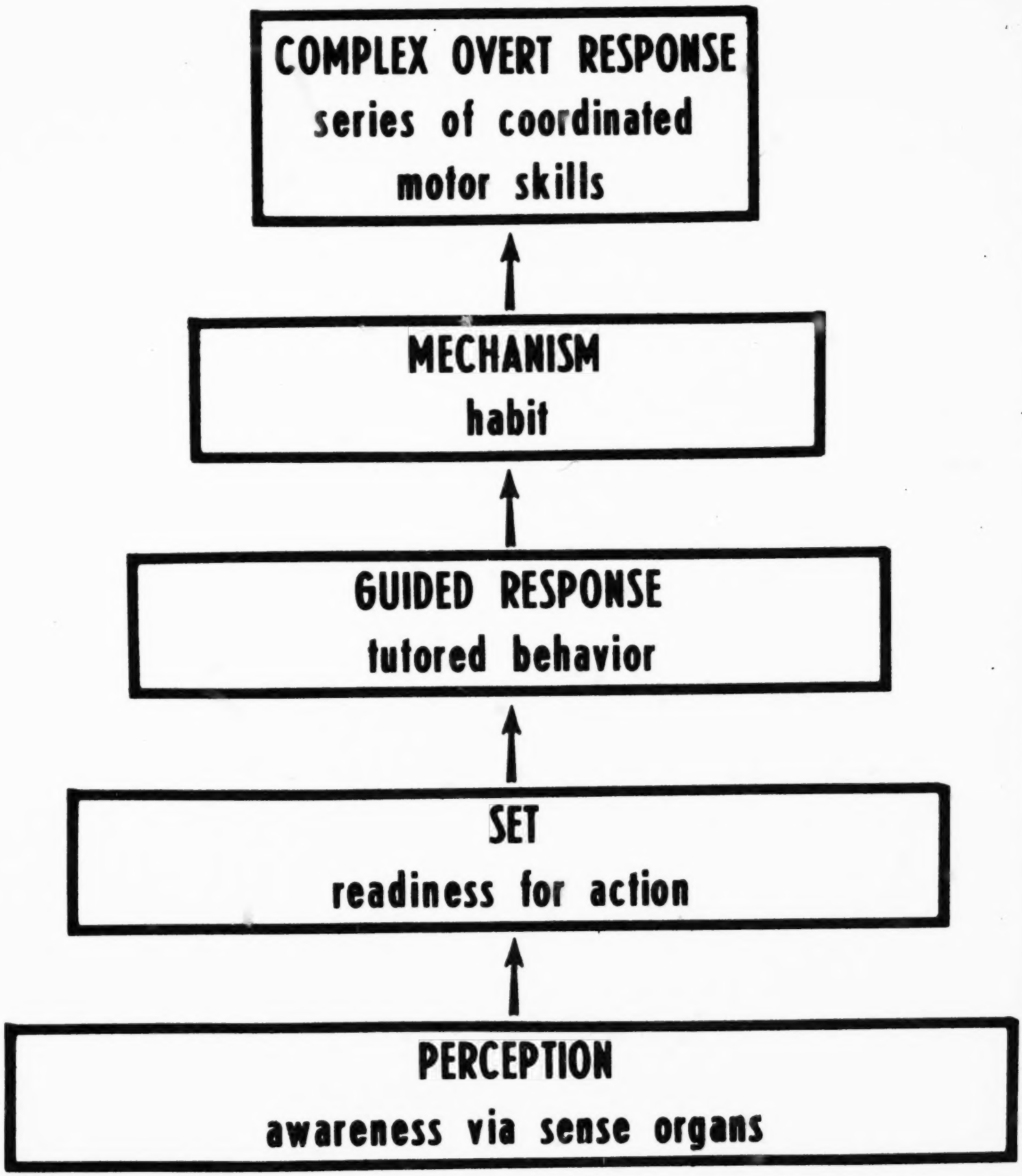


Figure 4. The Hierarchical Structure of the Levels of the Psychomotor Domain.

Much work is needed in studying this domain and its relationships to the cognitive and affective domains.

The taxonomy of behavioral objectives in the psychomotor domain contains five levels or classes of psychomotor behavior:

1. Perception--awareness via sense organs
2. Set--readiness for action
3. Guided Response--tutored behavior
4. Mechanism--habit
5. Complex overt response--series of coordinative motor skills

Some examples of behavioral objectives that are dominantly psychomotor are:

The child will roll a ball to a classmate.

The student will perform a folk dance without making a mistake in sequence of dance steps.

The learner will perform a dance step as demonstrated by the teacher.

The child will bat a pitched ball at least 20 feet.

THE INTERRELATIONSHIPS OF THE THREE DOMAINS

It was previously indicated that the three Domains interrelate, and are present to some degree a given behavior. Three figures are presented to exemplify this concept.

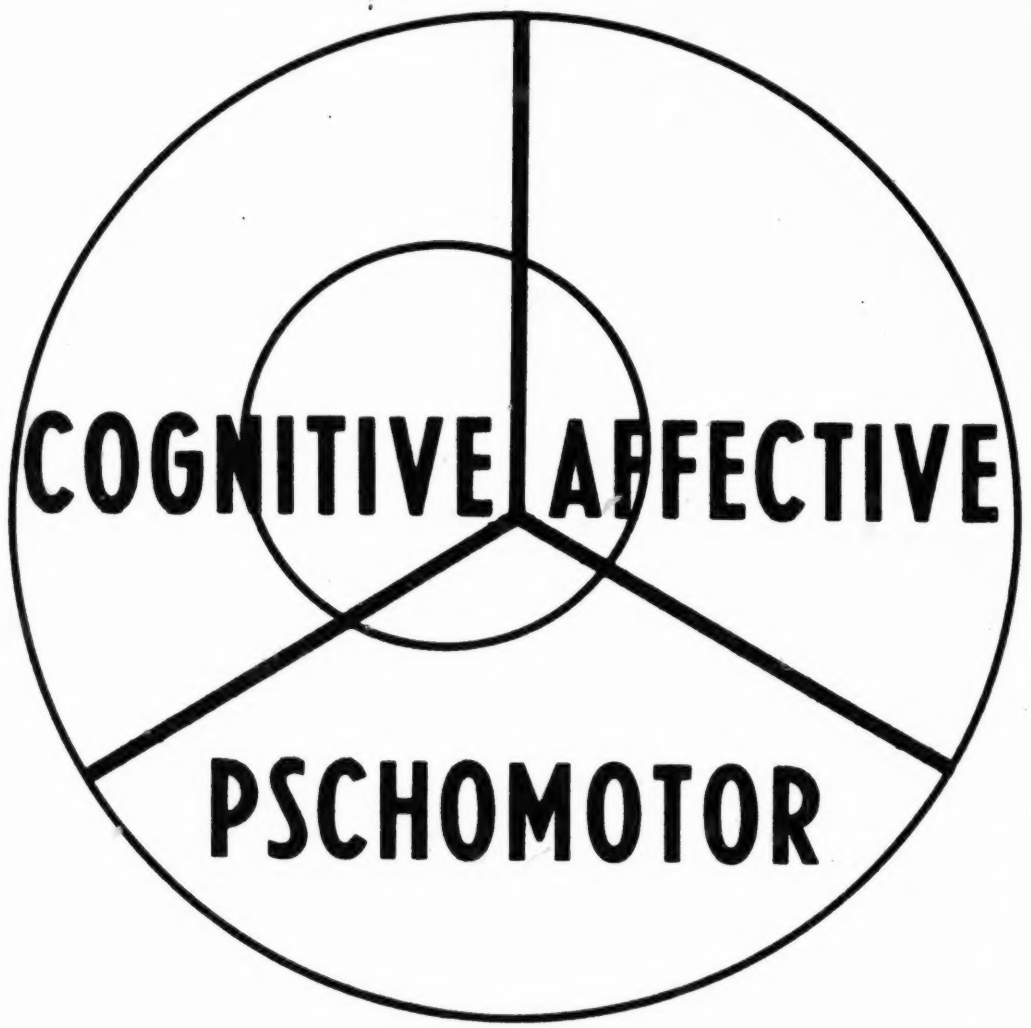
Figure 5 illustrates a behavior that is dominantly cognitive. The large circle represents behavior in the three domains. The smaller circle, superimposed upon the larger, represents the behavior specified in the behavioral objective on the figure. The cognitive domain is dominant in this particular objective because the learner must have

the cognitive knowledge of proper and improper grammatical structure in order to determine that he actually made a mistake. However, he must be affected to correct the mistake and have the psychomotor skill to pronounce or write the proper structure. However, in this case, cognition is the major factor and the affective and psychomotor domains are secondary factors.

Figure 6 depicts a behavior that is dominantly affective. The learner spontaneously decides to read a book therefore affective; but the learner must know how to read (cognitive) and have the ability to get to the library reading corner, pick up a book, and turn the pages. However, the dominant domain in this behavior is affective while the cognitive and psychomotor domains are secondary.

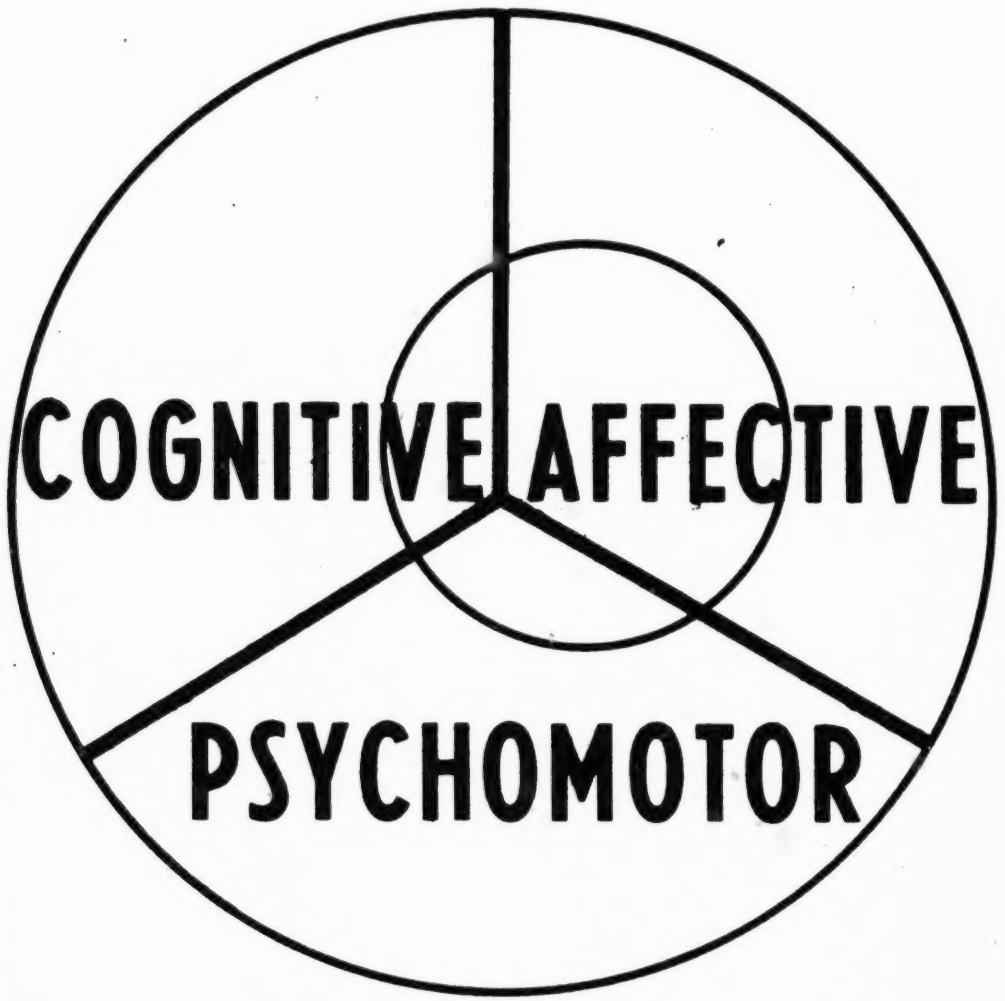
Figure 7 shows a behavior that is dominantly psychomotor in nature. Throwing a ball is a psychomotor skill but to perform this task, the learner must be affected to perform and know (cognitive) what a ball is as well as being able to recognize a classmate.

Thus, we have seen that behaviors encompass the three domains which interrelate when behaviors are performed. One is dominant in a given behavior but the other two are also present. Further discussion of this concept is presented in Chapter IV.



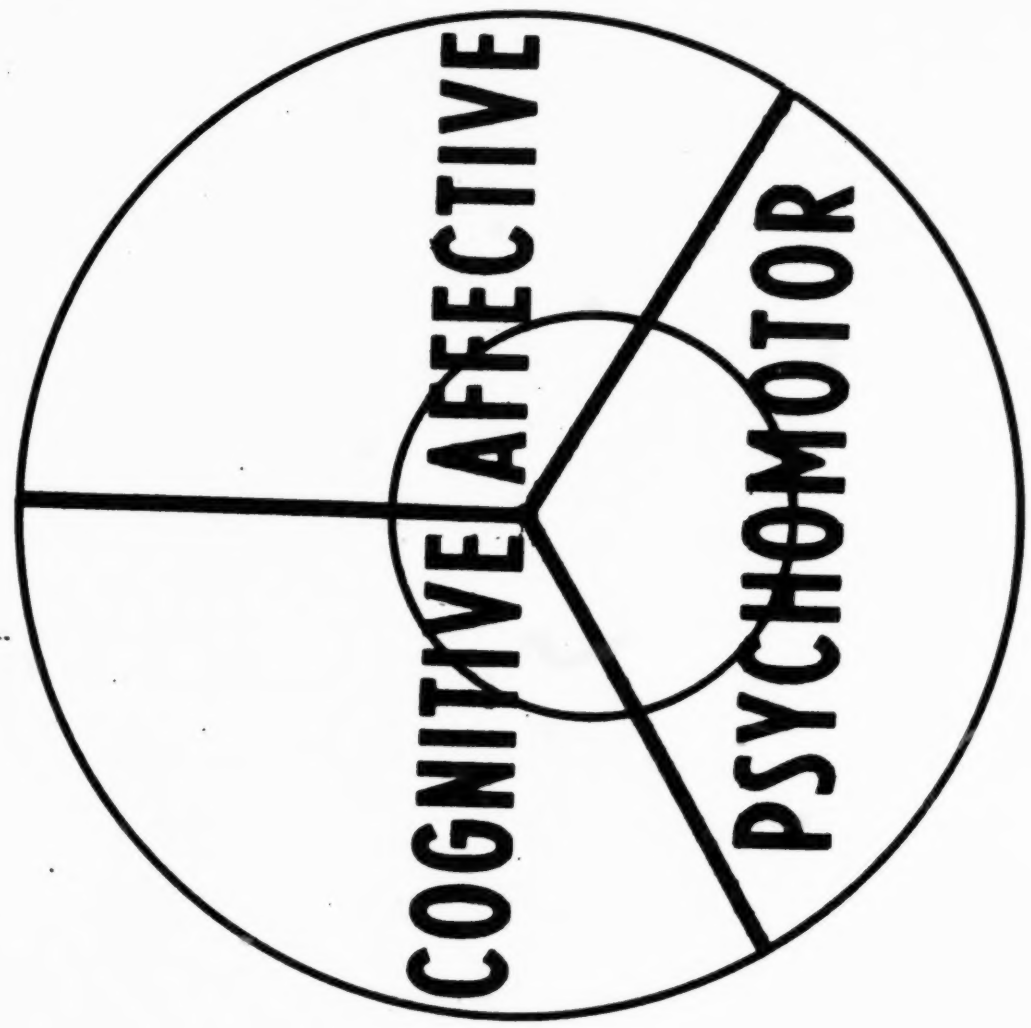
Learner verbally corrects his own grammatical error.

Figure 5. An Example of a Dominantly Cognitive Behavioral Objective.



Learner spontaneously reads a book which he has selected from the reading corner.

Figure 6. An Example of a Dominantly Affective Behavioral Objective.



Learner throws a ball to a classmate.

Figure 7. An Example of a Dominantly Psychomotor Behavioral Objective.

CHAPTER III

ENTERING BEHAVIOR

The assessment of entering behavior is a necessary preliminary activity to the writing of a behavioral objective. When writing a behavioral objective, one must have in mind the kinds of behavior the learner should have acquired and can demonstrate before he can perform the kind of behavior called for in the objective. Even though educators admonish, "Take your students as they are." They fail to assess "where they are" or to determine what kinds of behavior they can exhibit. Consequently, objectives are written which are unrealistic in terms of the kinds of behaviors and skills the students are already capable of performing.

What is indicated if one writes a behavioral objective and a learner fails to meet the standard? It indicates a number of things:

1. the content and instructional materials may be inappropriate
2. the evaluation may be inappropriate
3. the instructional techniques may have been inappropriate, or
4. the learner lacks the capability of demonstrating the desired behavior.

Too often we excuse our deficiencies by saying, "the child is dumb" or do we define "dumb" to mean that he hasn't acquired the necessary prerequisite behaviors to perform the task? Rather than labeling the child as "dumb," the teacher should assess the student's entering behavior (the behaviors he already has in his repertoire). She should then specify some realistic behavioral objectives and instructional sequences

that will teach the prerequisite behaviors necessary to meet the original objective.

Let's take a simple reading readiness example. Suppose a behavioral objective went something like this:

> The child will demonstrate his ability to identify parts of the body, e.g., foot, head, and shoulder, by drawing an x on the correct choice to a statement such as, "mark the foot" with 100% accuracy.

What if a child does not meet this objective? One of the most important things to do is to analyze the task in terms of the child's behavior in the three domains. For example:

1. Cognitive: Does the child have a sufficient knowledge of English to identify parts of the body in that language? Does the child know what an X is? If not, these behaviors need to be taught.

2. Affective: How does the child feel about the situation? Was the child receiving the stimuli and responding to the instruction? Does the child's cultural value system allow him to mark on parts of the body represented in pictures?

3. Psychomotor: Has the child demonstrated his ability to draw an X? Can the child actually manipulate the marking device with enough sophistication to make an X? Can the child receive stimuli through his sense organs (visual, aural, tactile, etc.)?

Perhaps the child needs instruction on these behaviors before he can meet the objective. The teacher should analyze the task in terms of the kinds of behaviors necessary to perform the task; then develop objectives and instruction to teach those behaviors. Other considerations have been mentioned above but need repeating:

1. Was the evaluative device appropriate for the instructional sequence and the objective?

2. Was the instruction and practice appropriate for the objective?

3. Were the instructional materials appropriate for the objective?

CHAPTER IV

THE WRITING OF BEHAVIORAL OBJECTIVES

A well formed, behavioral objective contains these components: (1) the doer, (2) the overt behavior (action verb), and (3) the given conditions and standard.

The Doer

The doer is the designated person who will perform the overt behavior. In an objective, he is commonly called the student, the learner, the child, or the pupil. The doer also may be specified as a collective, e.g., the group, the class, the squad, or the team.

The specification of the doer is important, because it tells exactly who is expected to perform the overt behavior stated in the objective.

The Observable Behavior

The overt behavior specifies what behavior the doer must demonstrate to meet the objective. The behavior must be specific and measurable. If it is open to interpretation, then we will not know if the task has been performed or not. Some specific examples are as follows:

Vague	Observable Behavior
to understand	to write
to know	to identify
to enjoy	to solve
to believe	to construct
to really understand	to list
to grasp significance of	to recite

The verbs listed under the category, Vague, are not measurable unless they are defined in terms of overt behaviors. The learner may

understand the concept of adding two, one digit numbers, but how do you measure this understanding? How does he demonstrate his understanding? An example might be: The child will demonstrate his understanding of the concept of adding two, one digit numbers by correctly solving ten addition examples containing two, one digit numbers.

Thus, we see that the verbs listed under Observable Behavior can be used to specify exactly how the desired behavior can be demonstrated in measurable form. The teacher knows what the child is to do; likewise the child knows how he is to demonstrate a certain knowledge. There is nothing inherently wrong with the ideas expressed in words labeled, Vague, but it is impossible to measure them as they stand. They must be stated as specific behaviors. There are multitudes of ways for a child to demonstrate to you, in some overt manner, that he enjoys, understands, grasps the significance of, knows, or believes. Therefore, precise specification of these ways is necessary if we are to measure such desired behaviors.

Given Conditions and Standards

Along with specifying the doer and the overt behavior that the doer must demonstrate, a well formed, behavioral objective must contain the given conditions and a standard of performance (performance criterion). Sometimes the standard is implicit in the given condition in that the behavior is either demonstrated or is not demonstrated. However, there are many occasions when the standard of performance may not require a simple, "He can do it or he can not do it." Perhaps a certain amount of error is allowable. For example, if the behavioral objective is: (Objective 1)

"The student will read orally a page from his reader with less

than four mistakes in word recognition."

What is the standard of performance in this objective? That's right!--less than four mistakes in word recognition. The constructor of this objective felt that at the most three mistakes in word recognition in this particular page would be acceptable in this particular case. The student does not have to recognize every word to meet the standard.

In the objective above, the given condition was--a page from his reader. This specifies clearly what the doer will read orally. It is not a Weekly Reader or a library book. It is his reader.

Let's look at another behavioral objective:

(Objective 2)

The child will throw a ball through a hoop at least three times in succession.

What is the standard of performance in this objective? If you said, "At least three times in succession," you are correct. The minimal acceptable performance to achieve this objective is no less than three times in succession.

What is the given condition in the above objective? If you think it is: a ball through a hoop, you are absolutely right. It is not a wad of paper into a wastebasket. It is a ball through a hoop.

Now let's look at this objective:

(Objective 3)

The child will print his name on his paper.

What is the given condition? Very good! The objective clearly specifies that the given condition is: his name on his paper. Nothing more or less than that. What is the standard of performance for that objective? This one is a little tricky. If you said something like:

"The standard is implicit in this objective. The child either does it or he doesn't," you are on the right track. If not, please review the first paragraph of this section. A standard of performance can be an "either he can demonstrate that behavior or he can not" situation.

Review

Let's review the ideas of the three domains and entering behaviors as they pertain to behavioral objectives.

In Objective 1, the dominant domain seems clearly to be cognitive. The child must have the cognitive knowledge of the printed symbols in order to carry out the task. The other two domains also apply, but to a lesser degree in this case. The child needs the psychomotor behavior to utter sounds and must be affected to perform the task in the first place. Now you can see that the ideas of dominant domains and entering behavior go hand in hand.

If the child could not meet the standard of performance, why not? Was it because he did not have the necessary cognitive knowledge to do so; are his psychomotor skills at such a level that he can not read orally; or are his affective behaviors such that reading aloud is not appropriate for him at the moment? If any or all of these are the case, then the teacher needs to develop and utilize behavioral objectives to teach these entering behaviors.

Objective 2 obviously is an example of psychomotor dominance. The child must have the psychomotor skill to grasp a ball and throw it with accuracy. Secondily, he needs cognitive knowledge of what the ball is and the location of the hoop. He also needs to be affected enough to perform the task. The entering behavior can be determined from this kind of analysis.

Sometimes it is difficult to determine which domain might be dominant in a given behavioral objective. When you write your own objectives, this becomes less of a problem because you have the rationale for writing the particular objective in mind at the outset. You know in which domain the behavior you are trying to elicit lies, but you are also cognizant of the other two domains, because they have a bearing on the demonstration of the behavior.

Writing Behavioral Objectives

You should understand the following:

1. the concepts of entering behavior and task analysis
2. the three domains: cognitive, affective, and psychomotor
3. the components of a well formed behavioral objective: the doer, the overt behavior (action verb), and the given conditions and standard of performance.

Perhaps you would like to practice writing some behavioral objectives for pupils in your class. You may use the next page as a structured guide in this activity.

You may also wish to study objectives which were collectively by eight first-grade teachers for their first day of teaching. These appear as APPENDIX D.

Practice page for writing behavioral objectives

Behavioral objective:

Doer	Action verb	Given condition(s)	(optional) Standard(s) of performance

Appropriate entering behavior:

Cognitive domain:

Affective domain:

Psychomotor domain:

Dominant domain of your objective:

CHAPTER V

CLASSROOM APPLICATION OF BEHAVIORAL OBJECTIVES

It probably is pretty clear, at this point, that behavioral objectives can be powerful tools for use in instruction. Like any other tool, they can be misused. The practitioner must decide what objectives are appropriate or inappropriate for the pupils in his classes. This is clearly an educated judgment. Someone may misuse this tool or use it only on trivia, however, this does not preclude the value of the tool when properly applied.

It was pointed out in Chapter I that the development of a specific terminal behavior is a basis for developing appropriate behavioral objectives. Proper instruction of pupils leads to the mastery of the behaviors specified in the objectives and, consequently, leads to the achievement of the terminal behavior. If the teacher specifies precise objectives he has a framework or guide in the selection of appropriate content and appropriate instructional materials and techniques to teach a pupil or class those particular behaviors. You will not be selecting content and materials that have no bearing on those behaviors or which may elicit other behaviors.

Secondly, both you and the learner know exactly what behaviors are to be learned and what content and materials are to be used to teach those behaviors.

A third important point is that both you and the learner have a specific method for evaluating whether or not the behaviors have been learned. The learner is able to check his enroute mastery of

requisite behaviors with which he can demonstrate the terminal behavior, and you as a teacher know how you're doing.

A fourth important point is that you can determine what kinds of entering behaviors are needed on the part of the learner to enable him to perform the behaviors specified in the behavioral objectives and the terminal objective. You are able to specify precise, necessary behaviors and develop behavioral objectives with concommitant remedial instruction to teach those behaviors if they are not in the learner's repertoire.

Finally, if teachers specify behavioral objectives with appropriate given conditions and standards of performance, lesson planning becomes a simpler matter as these are, in fact, the lesson plan. Not only does a well formed, behavioral objective communicate to the learner what is required but it also communicates this information to the teacher and possibly others, e.g., substitute teachers.

In conclusion, it must be pointed out that the writing and use of behavioral objectives by teachers is not a panacea but a tool and a technique. However, it is a viable and necessary tool that should be in every teacher's "tool kit."

Teachers using Southwestern Cooperative Educational Laboratory programs and materials (classroom management and Oral Language Program) will find these programs specify behavioral objectives and will find the information in this manual indispensible as they use those programs or materials.

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APPENDIX A

Condensed Version of the
Taxonomy of Educational Objectives
(from Bloom 1956)

Cognitive Domain

KNOWLEDGE

1.00 KNOWLEDGE

Knowledge, as defined here, involves the recall of specifics and universals, the recall of methods and processes, or the recall of a pattern structure, or setting. For measurement purposes, the recall situation involves little more than bringing to mind the appropriate material. Although some alteration of the material may be required, this is a relatively minor part of the task. The knowledge of objectives emphasizes most the psychological processes of remembering. The process of relating is also involved in that a knowledge test situation requires the organization and reorganization of a problem such that it will furnish the appropriate signals and cues for the information and knowledge the individual processes. To use an analogy, if one thinks of the mind as a file, the problem in a knowledge test situation is that of finding in the problem or task the appropriate signals, cues, and clues which will most effectively bring out whatever knowledge is filed or stored.

1.10 KNOWLEDGE OF SPECIFICS

The recall of specific and isolable bits of information. The emphasis on symbols with concrete referents. This material, which is at a very low level of abstraction, may be thought of as the elements from which more complex and abstract forms of knowledge are built.

1.11 KNOWLEDGE OF TERMINOLOGY

Knowledge of the referents for specific symbols (verbal and nonverbal). This may include knowledge of the most generally accepted symbol referent, knowledge of the variety of symbols which may be used for a single referent, or knowledge of the referent most appropriate to a given use of a symbol.

*To define technical terms by giving their attributes, properties, or relations.

*Familiarity with a large number of words in their common range of meanings.

1.12 KNOWLEDGE OF SPECIFIC FACTS

Knowledge of dates, events, persons, places, etc. This may include very precise and specific information such as the specific date or exact magnitude of a phenomenon. It may also include approximate or relative information such as an approximate time period or the general order of magnitude of a phenomenon.

*The recall of major facts about particular cultures.

*The possession of a minimum knowledge about the organisms studied in the laboratory.

1.20 KNOWLEDGE OF WAYS AND MEANS OF DEALING WITH SPECIFICS

Knowledge of the ways of organizing, studying, judging, and criticizing. This includes the methods of inquiry, the chronological sequences, and the standards of judgment within a field as well as the patterns of organization through which the areas of the fields themselves are determined and internally organized. This knowledge is at an intermediate level of abstraction between specific knowledge on the one hand and knowledge of universals on the other. It does not so much demand the activity of the student in using the materials as it does a more passive awareness of their nature.

1.21 KNOWLEDGE OF CONVENTIONS

Knowledge of characteristic ways of treating and presenting ideas and phenomena. For purposes of communication and consistency, workers in a field employ usages, styles, practices, and forms which best suit their purposes and/or which appear to suit best the phenomena with which they deal. It should be recognized that although these forms and conventions are likely to be set up on arbitrary, accidental, or authoritative bases, they are retained because of the general agreement or concurrence of individuals concerned with the subject, phenomena, or problem.

*Familiarity with the forms and conventions of the major types of work, e.g., verse, plays, scientific papers, etc.

*To make pupils conscious of correct form and usage in speech and writing.

1.22 KNOWLEDGE OF TRENDS AND SEQUENCES

Knowledge of the processes, directions, and movements of phenomena with respect to time.

*Understanding of the continuity and development of American culture as exemplified in American life.

*Knowledge of the basic trends underlying the development of public assistance programs.

1.23 KNOWLEDGE OF CLASSIFICATIONS AND CATEGOREIS

Knowledge of the classes, sets, divisions, and arrangements which are regarded as fundamental for a given subject field, purpose, argument, or problem.

*To recognize the area encompassed by various kinds of problems or materials.

*Becoming familiar with a range of types of literature.

1.24 KNOWLEDGE OF CRITERIA

Knowledge of the criteria by which facts, principles, opinions, and conduct are tested or judged.

*Familiarity with criteria for judgment appropriate to the type of work and the purpose for which it is read.

*Knowledge of criteria for the evaluation of recreational activities.

1.25 KNOWLEDGE OF METHODOLOGY

Knowledge of the methods of inquiry, techniques, and procedures employed in a particular subject field as well as those employed in investigating particular problems and phenomena. The emphasis here is on the individual's knowledge of the method rather than his ability to use the method.

*Knowledge of scientific methods for evaluating health concepts.

*The student shall know the methods of attack relevant to the kinds of problems of concern to the social sciences.

1.30 KNOWLEDGE OF THE UNIVERSALS AND ABSTRACTIONS IN A FIELD

Knowledge of the major schemes and patterns by which phenomena and ideas are organized. These are the large structures, theories, and generalizations which dominate a subject field or which are quite generally used in studying phenomena or solving problems. These are at the highest levels of abstraction and complexity.

1.31 KNOWLEDGE OF PRINCIPLES AND GENERALIZATIONS

Knowledge of particular abstractions which summarize observations of phenomena. These are the abstractions which are of value in explaining, describing, predicting, or in determining the most appropriate and relevant action or direction to be taken.

*Knowledge of the important principles by which our experience with biological phenomena is summarized.

*The recall of major generalizations about particular cultures.

1.32 KNOWLEDGE OF THEORIES AND STRUCTURES

Knowledge of the body of principles and generalizations together with their interrelations which present a clear, rounded, and systematic view of a complex phenomenon, problem, or field. These are the most abstract formulations, and they can be used to show the interrelation and organization of a great range of specifics.

*The recall of major theories about particular cultures.

*Knowledge of a relatively complete formulation of the theory of evolution.

INTELLECTUAL ABILITIES AND SKILLS

Abilities and skills refer to organized modes of operation and generalized techniques for dealing with materials and problems. The materials and problems may be of such a nature that little or no specialized and technical information is required. Such information as is required can be assumed to be part of the individual's general fund of knowledge. Other problems may require specialized and technical information at a rather high level such that specific knowledge and skill in dealing with the problem and the materials are required. The abilities and skills objectives emphasize the mental processes of organizing and reorganizing material to achieve a particular purpose. The materials may be given or remembered.

2.00 COMPREHENSION

This represents the lowest level of understanding. It refers to a type of understanding or apprehension such that the individual knows what is being communicated and can make use of the material or idea being communicated without necessarily relating it to other material or seeing its fullest implications.

2.10 TRANSLATION

Comprehension as evidenced by the care and accuracy with which the communication is paraphrased or rendered from one language or form of communication to another. Translation is judged on the basis of faithfulness and accuracy, that is, on the extent to which the material in the original communication is preserved although the form of the communication has been altered.

*The ability to understand non-literal statements (metaphor, symbolism, irony, exaggeration).

*Skill in translating mathematical verbal material into symbolic statements and vice versa.

2.20 INTERPRETATION

The explanation or summarization of a communication. Whereas translation involves an objective part-for-part rendering of a communication, interpretation involves a reordering, rearrangement, or a new view of the material.

*The ability to grasp the thought of the work as a whole at any desired level of generality.

*The ability to interpret various types of social data.

2.30 EXTRAPOLATION

The extension of trends or tendencies beyond the given data to determine implications, consequences, corollaries, effects, etc., which are in accordance with the conditions described in the original communication.

*The ability to deal with the conclusions of a work in terms of the immediate inference made from the explicit statements.

*Skill in predicting continuation of trends.

3.00 APPLICATION

The use of abstractions in particular and concrete situations. The abstractions may be in the form of general ideas, rules of procedures, or generalized methods. The abstractions may also be technical principles, ideas, and theories which must be remembered and applied.

*Application to the phenomena discussed in one paper of the scientific terms or concepts used in other papers.

*The ability to predict the probable effect of a change in a factor on a biological situation previously at equilibrium.

4.00 ANALYSIS

The breakdown of a communication into its constituent elements or parts such that the relative hierarchy of ideas is made clear and/or the relations between the ideas expressed are made explicit. Such analyses are intended to clarify the communication, to indicate how the communication is organized, and the way in which it manages to convey its effects, as well as its basis and arrangement.

4.10 ANALYSIS OF ELEMENTS

Identification of the elements included in a communication.

*The ability to recognize unstated assumptions.

*Skill in distinguishing facts from hypotheses.

4.20 ANALYSES OF RELATIONSHIPS

The connections and interactions between elements and parts of a communication.

*Ability to check the consistency of hypotheses with given information and assumptions.

*Skill in comprehending the interrelationships among the ideas in a passage.

4.30 ANALYSIS OF ORGANIZATIONAL PRINCIPLES

The organization, systematic arrangement, and structure which hold the communication together. This includes the "explicit" as well as "implicit" structure. It includes the bases, necessary arrangement, and the mechanics which make the communication a unit.

*The ability to recognize form and pattern in literary or artistic works as a means of understanding their meaning.

*Ability to recognize the general techniques used in persuasive materials, such as advertising, propaganda, etc.

5.00 SYNTHESIS

The putting together of elements and parts so as to form a whole. This involves the process of working with pieces, parts, elements, etc., and arranging and combining them in such a way as to constitute a pattern or structure not clearly there before.

5.10 PRODUCTION OF A UNIQUE COMMUNICATION

The development of a communication in which the writer or speaker attempts to convey ideas, feelings, and/or experiences to others.

*Skill in writing, using an excelient organization of ideas and statements.

*Ability to tell a personal experience effectively.

5.20 PRODUCTION OF A PLAN, OR PROPOSED SET OF OPERATIONS

The development of a plan of work or the proposal of a plan of operations. The plan should satisfy requirements of the task which may be given to the student or which he may develop for himself.

*Ability to propose ways of testing hypotheses.

*Ability to plan a unit of instruction for a particular teaching situation.

5.30 DERIVATION OF A SET OF ABSTRACT RELATIONS

The development of a set of abstract relations either to classify or explain particular data or phenomena, or the deduction of propositions and relations from a set of basic propositions or symbolic representations.

*Ability to formulate appropriate hypotheses based upon an analysis of factors involved, and to modify such hypotheses in the light of new factors and considerations.

*Ability to make mathematical discoveries and generalizations.

6.00 EVALUATION

Judgments about the value of material and methods for given purposes. Quantitative and qualitative judgments about the extent to which material and methods satisfy criteria. Use of a standard of appraisal. The criteria may be those determined by the student or those which are given to him.

6.10 JUDGMENTS IN TERMS OF INTERNAL EVIDENCE

Evaluation of the accuracy of a communication from such evidence as logical accuracy, consistency, and other internal criteria.

*Judging by internal standards, the ability to assess general probability of accuracy in reporting facts from the care given to exactness of statement, documentation, proof, etc.

*The ability to indicate logical fallacies in arguments.

6.20 JUDGMENTS IN TERMS OF EXTERNAL CRITERIA

Evaluation of material with reference to selected or remembered criteria.

*The comparison of major theories, generalizations, and facts about particular cultures.

*Judging by external standards, the ability to compare a work with the highest known standards in its field--especially with other works of recognized excellence.

APPENDIX B

Condensed Version of the

Taxonomy of Educational Objectives

(from Krathwohl, 1964)

Affective Domain

1.0 RECEIVING (ATTENDING)

At this level we are concerned that the learner be sensitized to the existence of certain phenomena and stimuli; that he be willing to receive or to attend to them. This is clearly the first and crucial step if the learner is to be properly oriented to learn what the teacher intends that he will. To indicate that this is the bottom rung of the ladder, however, is not at all to imply that the teacher is starting de novo. Because of previous experience (formal or informal), the student brings to each situation a point of view or set which may facilitate or hinder his recognition of the phenomena to which the teacher is trying to sensitize him.

The category of Receiving has been divided into three sub-categories to indicate three different levels of attendance to phenomena. While the division points between the sub-categories are arbitrary, the sub-categories do represent a continuum. From an extremely passive position or role on the part of the learner, where the sole responsibility for the evocation of the behavior rests with the teacher--that is, the responsibility rests with him for "capturing" the student's attention--the continuum extends to a point at which the learner directs his attention, at least at a semiconscious level, toward the preferred stimuli.

1.1 AWARENESS

Awareness is almost a cognitive behavior. But unlike Knowledge, the lowest level of the cognitive domain, we are not so much concerned with a memory of, or ability to recall, an item or fact as we are that, given appropriate opportunity, the learner will merely be conscious of something--that he takes into account a situation, phenomenon, object, or stage of affairs. Like Knowledge, it does not imply an assessment of the qualities or nature of the stimulus, but unlike Knowledge it does not necessarily imply attention. There can be simple awareness without specific discrimination or recognition of the objective characteristics of the object, even though these characteristics must be deemed to have an effect. The individual may not be able to verbalize the aspects of the stimulus which cause the awareness.

Develops awareness of aesthetic factors in dress, furnishings, architecture, city design, good art, and the like.

Develops some consciousness of color, form, arrangement, and design in the objects and structures around him and in descriptive or symbolic representations of people, things, and situations.*

1.2 WILLINGNESS TO RECEIVE

In this category we have come a step up the ladder but are still dealing with what appears to be cognitive behavior. At a minimum level, we are here describing the behavior of being willing to tolerate a given stimulus, not to avoid it. Like Awareness it involves a neutrality or suspended judgment toward the stimulus. At this level of the continuum the teacher is not concerned that the student seek it out, nor even, perhaps, that in an environment crowded with many other stimuli the learner will necessarily attend to the stimulus. Rather, at worst, given the opportunity to attend in a field with relatively few competing stimuli, the learner is not actively seeking to avoid it. At best, he is willing to take notice of the phenomenon and give it his attention.

Attends (carefully) when others speak--in direct conversation, on the telephone, in audiences.

Appreciation (tolerance) of cultural patterns exhibited by individuals from other groups--religious, social, political, economic, national, etc.

Increase in sensitivity to human need and pressing social problems.

1.3 CONTROLLED OR SELECTED ATTENTION

At a somewhat higher level we are concerned with a new phenomenon, the differentiation of a given stimulus into figure and ground at a conscious or perhaps semiconscious level--the differentiation of aspects of a stimulus which is perceived as clearly marked off from adjacent impressions. The perception is still without tension or assessment, and the student may not know the technical terms or symbols with which to describe it correctly or precisely to others. In some instances it may refer not so much to the selectivity of attention as to the control of attention, so that when certain stimuli are present they will be attended to. There is an element of the learner's controlling the attention here, so that the favored stimulus is selected and attended to despite competing and distracting stimuli.

Listens to music with some discrimination as to its mood and meaning and with some recognition of the contributions of various musical elements and instruments to the total effect.

Alertness toward human values and judgments on life as they are recorded in literature.

2.0 RESPONDING

At this level we are concerned with responses which go beyond merely attending to the phenomenon. The student is sufficiently motivated that he is not just 1.2 Willing to attend, but perhaps it is correct to say that he is actively attending. As a first stage in a "learning by doing" process

the student is commiting himself in some small measure to the phenomena involved. This is a very low level of commitment, and we would not say at this level that this was "a value of his" or that he had "such and such an attitude." These terms belong to the next higher level that we describe. But we could say that he is doing something with or about the phenomenon besides merely perceiving it, as would be true at the next level below this of 1.3 Controlled or selected attention.

This is the category that many teachers will find best describes their "interest" objectives. Most commonly we use the term to indicate the desire that a child becomes sufficiently involved in or committed to a subject, phenomenon, or activity that he will seek it out and gain satisfaction from working with it or engaging in it.

2.1 ACQUIESCENCE IN RESPONDING

We might use the word "obedience" or "compliance" to describe this behavior. As both of these terms indicate, there is a passiveness so far as the initiation of the behavior is concerned, and the stimulus calling for this behavior is not subtle. Compliance is perhaps a better term than obedience, since there is more of the element of reaction to a suggestion and less of the implication of resistance or yielding unwillingly. The student makes the response, but he has not fully accepted the necessity for doing so.

Willingness to comply with health regulations.
Obeys the playground regulations.

2.2 WILLINGNESS TO RESPOND

The key to this level is in the term "willingness," with its implication of capacity for voluntary activity. There is the implication that the learner is sufficiently committed to exhibiting the behavior that he does so not just because of a fear of punishment, but "on his own" or voluntarily. It may help to note that the element of resistance or of yielding unwillingly, which is possibly present at the previous level, is here replaced with consent or proceeding from one's own choice.

Acquaints himself with significant current issues in international, political, social and economic affairs through voluntary reading and discussion.
Acceptance of responsibility for his own health and for the protection of the health of others.

2.3 SATISFACTION IN RESPONSE

The additional element in the step beyond the Willingness to respond level, the consent, the assent to responding, or the voluntary response, is that the behavior is accompanied by a feeling of satisfaction, an emotional response, possibly of pleasure, zest, or enjoyment. The location of this category in the hierarchy has given us a great deal of difficulty. Just where in the process of internalization the attachment of an emotional response, kick, or thrill to a behavior occurs has been hard to determine. For that matter there is some

uncertainty as to whether the level of internalization at which it occurs may not depend on the particular behavior. We have even questioned whether it should be a category. If our structure is to be a hierarchy, then each category should include the behavior in the next level below it. The emotional compoenent appears gradually through the range of internalization categories. The attempt to specify a given position in the hierarchy as <u>the</u> one at which the emotional component is added is doomed to failure.

The category is arbitrarily placed at this point in the hierarchy where it seems to appear most frequently and where it is cited as or appears to be an important component of the objective at the level of the continuum. The category's inclusion at this point serves the pragmatic purpose of reminding us of the presence of the emotional component and its value in the building of affective behaviors. But it should not be thought of as appearing and occuring at this one point in the continuum and thus destroying the hierarchy which we are attempting to build.

Enjoyment of self-expression in music and in arts and crafts as another means of personal enrichment.

Finds pleasure in reading for recreation.
Takes pleasure in conversing with many different kinds of people.

3.0 VALUING

This is the only category headed by a term which is in common use in the expression of objectives by teachers. Further, it is employed in its usual sense: that a thing, phenomenon, or behavior has worth. This abstract concept of worth is in part a result of the individual's own valuing or assessment, but it is much more a social product that has been slowly internalized or accepted and has come to be used by the student as his own criterion of worth.

Behavior categorized at this level is sufficiently consistent and stable to have taken on the characteristics of a belief or an attitude. The learner displays this behavior with sufficient consistency in appropriate situations that he comes to be perceived as holding a value. At this level, we are not concerned with the relationships among values but rather with the internalization of a set of specified, ideal, values. Viewed from another standpoint, the objectives classified here are the prime stuff from which the conscience of the individual is developed into active control of behavior.

This category will be found appropriate for many objectives that use the term "attitude" (as well as, of course, "value").

An important element of behavior characterized by <u>Valuing</u> is that it is motivated, not by the desire to comply or obey, but by the individual's commitment to the underlying value guiding the behavior.

3.1 ACCEPTANCE OF A VALUE

At this level we are concerned with the ascribing of worth to a phenomenon behavior, object, etc. The term "belief," which is defined as "the emotional acceptance of a proposition or doctrine upon what one implicitly considers adequate ground" (English and English, 1958, p. 64), described quite well what may be thought of as the dominant characteristic here. Beliefs have varying degrees of certitude. At this lowest level of Valuing we are concerned with the lowest levels of certainty; that is, there is more of a readiness to re-evaluate one's position than at the higher levels. It is a position that is somewhat tentative.

One of the distinguishing characteristics of this behavior is consistency of response to the class of objects, phenomena, etc. with which the belief or attitude is identified. It is consistent enough so that the person is perceived by others as holding the belief or value. At the level we are describing here, he is both sufficiently consistent that others can identify the value, and sufficiently committed that he is willing to be so identified.

Continuing desire to develop the ability to speak and write effectively.
Grows in his sense of kinship with human beings of all nations.

3.2 PREFERENCE FOR A VALUE

The provision for this subdivision arose out of a feeling that there were objectives that expressed a level of internalization between the mere acceptance of a value and commitment or conviction in the usual connotation of deep involvement in an area. Behavior at this level implies not just the acceptance of a value to the point of being willing to be identified with it, but the individual is sufficiently committed to the value to pursue it, to seek it out, to want it.

Assumes responsibility for drawing reticent members of a group into conversation.

Deliberately examines a variety of viewpoints on controversial issues with a view to forming opinions about them.

Actively participates in arranging for the showing of contemporary artistic efforts.

3.3 COMMITMENT

Belief at this level involves a high degree of certainty. The ideas of "conviction" and "certainty beyond a shadow of a doubt" help to convey further the level of behavior intended. In some instances this may border on faith, in the sense of its being a firm emotional acceptance of a belief upon admittedly nonrational grounds. Loyalty to a position, group, or cause would also be classified here.

The person who displays behavior at this level is clearly perceived as holding the value. He acts to further the thing valued in some way, to extend

the possibility of his developing it, to deepen his involvement with it and with the things representing it. He tries to convince others and seeks converts to his cause. There is a tension here which needs to be satisfied; action is the result of an aroused need or drive. There is a real motivation to act out the behavior.

Devotion to those ideas and ideals which are the foundations of democracy. Faith in the power of reason and in methods of experiment and discussion.

4.0 ORGANIZATION

As the learner successively internalizes values, he encounters situations for which more than one value is relevant. Thus necessity arises for (a) the organization of the values into a system, (b) the determination of the interrelationships among them, and (c) the establishment of the dominant and pervasive ones. Such a system is built gradually, subject to change as new values are incorporated. This category is intended as the proper classification for objectives which describe the beginnings of the building of a value system. It is subdivided into two levels, since a prerequisite to interrelating is the conceptualization of the value in a form which permits organization. Conceptualization forms the first subdivision in the organization process, Organization of a value system, the second.

While the order of the two subcategories seems appropriate enough with reference to one another, it is not so certain that 4.1 Conceptualization of a value is properly placed as the next level above 3.3 Commitment. Conceptualization undoubtedly begins at an earlier level for some objectives. Like 2.3 Satisfaction in response, it is doubtful that a single completely satisfactory location for this category can be found. Positioning it before 4.3 Organization of a value system appropriately indicates a prerequisite of such a system. It also calls attention to a component of affective growth that occurs at least by this point on the continuum but may begin earlier.

4.1 CONCEPTUALIZATION OF A VALUE

In the previous category, 3.0 Valuing, we noted that consistency and stability are integral characteristics of the particular value or belief. At this level (4.1) the quality of abstraction or conceptualization is added. This permits the individual to see how the value relates to those that he already holds or to new ones that he is coming to hold.

Conceptualization will be abstract, and in this sense it will be symbolic. But the symbols need not be verbal symbols. Whether conceptualization first appears at this point on the affective continuum is a moot point, as noted above.

Attempts to identify the characteristics of an art object which he admires.

Forms judgments as to the responsibility of society for conserving human and material resources.

4.2 ORGANIZATION OF A VALUE SYSTEM

Objectives properly classified here are those which require the learner to bring together a complex of values, possibly disparate values, and to bring these into an ordered relationship with one another. Ideally, the ordered relationship will be one which is harmonious and internally consistent. That is, of course, the goal of such objectives, which seek to have the student formulate a philosophy of life. In actuality, the integration may be something less than entirely harmonious. More likely the relationship is better described as a kind of dynamic equilibrium which is, in part, dependent upon those portions of the environment which are salient at any point in time. In many instances the organization of values may result in their synthesis into a new value complex of a higher order.

Weights alternative social policies and their practices against the standards of the public welfare rather than the advantage of specialized and narrow interest groups.

Develops a plan for regulating his rest in accordance with the demands of his activities.

5.0 CHARACTERIZATION BY A VALUE OR VALUE COMPLEX

At this level of internalization the values already have a place in the individual's value hierarchy, are organized into some kind of internally consistent system, have controlled the behavior of the individual for a sufficient time that he has adapted to behaving this way; and an evocation of the behavior no longer arouses emotion or affect except when the individual is threatened or challenged.

The individual acts consistently in accordance with the values he has internalized at this level, and our concern is to indicate two things: (a) the generalization of this control to so much of the individual's behavior that he is described and characterized as a person by these pervasive controlling tendencies, and (b) the integration of these beliefs, ideas, and attitudes into a total philosophy or world view. These two aspects constitute the subcategories.

5.1 GENERALIZED SET

The generalized set is that which gives an internal consistency to the system of attitudes and values at any particular moment. It is selective responding at a very high level. It is sometimes spoken of as a determining tendency, an orientation toward phenomena, or a predisposition to act in a certain way.

The generalized set is a response to highly generalized phenomena. It is a persistent and consistent response to a family of related situations or objects.

It may often be an unconscious set which guides action without conscious forethought. The generalized set may be thought of as closely related to the

2

idea of an attitude cluster, where the commonality is based on behavioral characteristics rather than the subject or object of the attitude. A generalized set is a basic orientation which enables the individual to reduce and order the complex world about him and to act consistently and effectively in it.

Readiness to revise judgments and to change behavior in the light of evidence.

Judges problems and issues in terms of situations, issues, purposes, and consequences involved rather than in terms of fixed, dogmatic percepts or emotionally wishful thinking.

5.2 CHARACTERIZATION

This, the peak of the internalization process, includes those objectives which are broadest with respect both to the phenomena covered and to the range of behavior which they comprise. Thus, here are found those objectives which concern one's view of the universe, one's philosophy of life, one's Weltanschauung--a value system having as its object the whole of what is known or knowable.

Objectives categorized here are more than generalized sets in the sense that they involve a greater inclusiveness and, within the group of attitudes, behaviors, beliefs, or ideas, an emphasis on internal consistency. Though this internal consistency may not always be exhibited behaviorally by the students toward whom the objective is directed, since we are categorizing teachers' objectives, this consistency feature will always be a component of Characterization objectives.

As the title of the category implies, these objectives are so encompassing that they tend to characterize the individual almost completely.

Develops for regulation of one's personal and civic life a code of behavior based on ethical principles consistent with democratic ideals.

Develops a consistent philosophy of life.

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*Illustrative objectives selected from the literature follow the description of each sub-category.

APPENDIX C

THE CLASSIFICATION OF EDUCATIONAL OBJECTIVES: PSYCHOMOTOR DOMAIN (From Simpson, 1966)

Need for Classification System for Educational Objectives, Psychomotor Domain

Simpson (1966) has made use of the two taxonomies of educational objectives already developed (the cognitive and the affective domains). She and others feel there has been a great need for a classification system for educational objectives in the psychomotor domain, for use in the development of curriculum materials and as a basis for evaluation of educational outcomes.

Simpson believes that the psychomotor domain has relevance for education in general and also for many areas of specialization in secondary and higher education.

A classification system for psychomotor objectives has all of the advantages of the classification systems for the other two domains. It can be helpful in research on teaching for the development of motor abilities and skills. Teachers and curriculum makers can use it in developing materials for classroom use; and test makers can use it to communicate more easily with those they serve. Perhaps the greatest benefit will accrue from rounding out the three domains, and thus will provide for better study of the total field of objectives and the planning of educational programs in response to objectives broadly conceived.

Definitions of Terms

Simpson (1966) arrived at certain useful definitions in the

psychomotor domain. These are as follows:

psychomotor objectives - those which emphasize some muscular or motor skill, some manipulation of material and objects, or some act which requires a neuromuscular coordination. These objectives are stated in terms of abilities and skills.

perception - the process of becoming aware of objects, qualities, or relations by way of sense organs.

sensory stimulation - impingement of a stimulus (i) upon one or more of the sense organs.

stimulus - the source of energy which affects a sense organ; what the behavior is responding to in a situation.

cues - a stimulus which serves as a sign or signal of something else, the connection having been previously learned.

visual - concerned with the mental pictures or images obtained through the eyes.

visual cues - color, spatial relations, shape (line, form, size), motion, light and shade.

auditory - pertaining to hearing or the sense or organs of hearing.

auditory cues - volume, pitch, timbre, distance, pattern of sounds.

tactile - pertaining to the sense of touch.

tactile cues - texture, temperature, shape, size, pressure, position, state of motion, weight.

taste - ascertaining the relish or flavor of by taking some into the mouth.

taste cues - saltiness, sourness, bitterness, sweetness

smell - to perceive by excitation of the olfactory nerves.

smell cues - (odors) - ethereal, such as fruity, lemon; fragrance, as violet burned, as tar; putrid, as bad fish; resinous, as pine; spicy, as cloves.

kinesthetic - the muscle sense; pertaining to sensitivity from activation of receptors in muscles, tendons, and joints.

cue selection - deciding what cues one must respond to in order to satisfy the particular requirement of task performance.

reflex action - an act, as a movement, performed involuntarily in consequence of a nervous impulse transmitted inward from a receptor, or sense organ, to a nerve center and outward to an effector, as a muscle or gland.

set - a preparatory adjustment or readiness for a particular kind of action or experience.

mental set - readiness, in the mental sense, to perform a certain motor act.

physical set - readiness in the sense of having made the anatomical and postural adjustments necessary for the motor act to take place.

emotional set - readiness in terms of attitudes favorable to the motor act's taking place.

translation process - process of relating perception to action.

response - overt behavioral act of an individual.

mechanism - a habitual way of responding.

readiness to respond - set to produce an overt behavioral act.

gross motor acts - those involving the large muscle groups of the body, especially of the shoulders, trunk, and legs.

fine motor acts - those that are performed by small muscles, especially of the fingers, hand and forearm, frequently involving eye-hand coordination.

Examples of Usage

Two examples of what happens in what sequence when one is working toward the achievement of an objective in this domain are as follows:

OBJECTIVE	SEQUENCE OF ACTION IN CARRYING OUT TASK
A. Ability to stack a tray.	1. Perception Visual, tactile, and kinesthetic

2. Set
   Mental set-discrimination
   Physical set - receptor set,
   and postural set

3. Response
   Readiness
   Selection of response
   Imitation
   Gross muscular activity

4. Mechanism - Response is learned

5. Complex overt response
   Resolution of uncertainty
   Automatic performance

B. Ability to carry a large tray

1. Perception
   1.12 Visual

2. Set
   2.10 Mental set
   2.11 Discrimination
   2.20 Physical set
   2.21 Receptor set
   2.22 Postural set

3. Response
   3.10 Readiness to respond
   3.20 Selection of response
   3.21 Imitation
   3.22 Trial and error

4. Mechanism - Learned response

5. Complex
   5.10 Resolution of uncertainty
   5.20 Automatic performance

The Schema

The following schema for classification of Educational Objectives in the psychomotor domain is presented with the knowledge that it is still in tentative form and probably needs more research in certain areas. Simpson believes that the schema in its present form will be useful to education. Whether there is sufficient distinction between one catagory

and another is still a question. Perhaps additional sub-categories to improve the discrimination are needed for some of the major sections.

The major operative organization principle is that of complexity, with attention to the sequence involved in the performance of a motor act,

1.00 Perception - This is an essential first step in performing a motor act. It is the process of becoming aware of objects, qualities, or relations by way of the sense organs. It is the central portion of the situation - interpretation - action chain leading to purposeful motor activity.

The category of perception has been divided into three sub-categories indicating three different levels with respect to perception process. It seems to the investigator that this level is a parallel of the first category, receiving or attending, in the affective domain.

1.1 Sensory stimulation - Impingement of a stimulus (1) upon one or more of the sense organs.

1.11 Auditory - Hearing or the sense or organs of hearing

1.12 Visual - Concerned with the mental pictures or images obtained through the eyes

1.13 Tactile - Pertaining to the sense of touch

1.14 Taste - Ascertain the relish or flavor of by taking a portion into the mouth

1.15 Smell - To perceive by excitation of the olfactory nerves

1.2 Kinesthetic - The muscle sense; pertaining to sensitivity from activation of receptors in muscles, tendons, and joints.

The preceding categories are not presented in any special order of importance, although, in Western cultures, the visual cues are said to have dominance, whereas in some cultures, the auditory and tactile cues may pre-empt the high position we give the visual. Probably no sensible

ordering of these is possible. It should also be pointed out that the cues that guide action may change for a particular motor activity as learning progresses (e.g., kinesthetic cues replacing visual cues):

1.1 Sensory stimulation - Illustrative educational objectives.

Sensitivity to auditory cues in playing a musical instrument as a member of a group

Awareness of difference in "hand" of various fabrics.

Sensitivity to flavors in seasoning food.

1.2 Cue selection - Deciding to what cues one must respond in order to satisfy the particular requirements of task performance.

This involves identification of the cue or cues and associating them with the task to be performed. It may involve grouping of cues in terms of past experience and knowledge. Cues relevant to the situation are selected as a guide to action; irrelevant cues are ignored or discarded.

1.2 Cue selection - Illustrative educational objectives.

Recognition of operating difficulties with machinery through the sound of the machine in operation.

Sensing where the needle should be set in beginning machine stitching.

Recognizing factors to take into account in batting in a softball game.

1.3 Translation - Relating of perception to action in performing a motor act. This is the mental process of determining the meaning of the cues received for action. It involves symbolic translation, that is, having an image or being reminded of something, "having an idea," as a

result of cues received. It may involve insight which is essential in solving a problem through perceiving the relationships essential to solution. Sensory translation is an aspect of this level. It involves "feedback," that is, knowledge of the effects of the process; translation is a continuous part of the motor act being performed.

1.3 Translation - Illustrative educational objectives.

Ability to relate music to dance form.

Ability to follow a recipe in preparing food.

Knowledge of the "feel" of operating a sewing machine successfully and use of this knowledge as a guide in stitching.

2.0 Set - Set is a preparatory adjustment or readiness for a particular kind of action or experience.

Three aspects of set have been identified: mental, physical, and emotional.

2.1 Mental set - Readiness, in the mental sense, to perform a certain motor act. This involves, as prerequisite, the level of perception and its sub-categories which have already been identified. Discrimination, that is, using judgment in making distinctions is an aspect.

2.1 Mental set - Illustrative educational objectives.

Knowledge of steps in setting the table.

Knowledge of tools appropriate to performance of various sewing operations.

2.2 Physical set - Readiness in the sense of having made the anatomical adjustments necessary for a motor act to be performed. Readiness, in the physical sense, involves receptor set, that is, sensory attending, or focusing the attention of the needed sensory organs and postural set, or positioning of the body.

2.2 Physical set - Illustrative educational objectives.

Achievement of bodily stance preparatory to bowling.

Positioning of hands preparatory to typing.

2.3 Emotional set - Readiness in terms of attitudes favorable to the motor act's taking place. Willingness to respond is implied.

2.3 Emotional set - Illustrative educational objectives.

Disposition to perform sewing machine operation to best of ability.

Desire to operate a production drill press with skill.

3.0 Guided response - This is an early step in the development of skill. Emphasis here is upon the abilities which are components of the more complex skill. Guided response is the overt behavioral act of an individual under the guidance of the instructor. Prerequisite to performance of the act are readiness to respond, in terms of set to produce the overt behavioral act and selection of the appropriate response. Selection of response may be defined as deciding what response must be made in order to satisfy the particular requirements of task performance. There appear to be two major subcategories, imitation and trial and error.

3.1 Imitation - Imitation is the execution of an act as a direct response to the perception of another person performing the act.

3.1 Imitation - Illustrative educational objectives.

Imitation of the process of stay-stitching the curved neck edge of a bodice.

Performing a dance step as demonstrated.

Debeaking a chick in the manner demonstrated.

3.2 Trial and error - Trying various responses, usually with some rationale for each response, until an appropriate response is achieved. The appropriate response is one which meets the requirements of task performance, that is, "gets the job done" or does it more efficiently. This level may be defined as multiple-response learning in which the proper response is selected out of varied behavior, possibly through the influence of reward and punishment.

3.2 Trial and error - Illustrative educational objectives.

Discovering the most efficient method of ironing a blouse through trial of various procedures.

Ascertaining the sequence for cleaning a room through trial of several patterns.

4.0 Mechanism - Learned response has become habitual. At this level, the learner has achieved a certain confidence and degree of skill in the performance of the act. The act is a part of his repertoire of possible responses to stimuli and the demands of situations where the response is an appropriate one. The response may be more complex than at the preceding level; it may involve some patterning of response in carrying out the task. That is, abilities are combined in action of a skill nature.

4.0 Mechanism - Illustrative educational objectives.

Ability to perform a hand-hemming operation.

Ability to mix ingredients for a butter cake.

Ability to pollinate an oat flower.

5.0 Complex overt response - At this level, the individual can perform a motor act that is considered complex because of the movement pattern required. At this level, a high degree of skill has been attained. The act can be carried out smoothly and efficiently, that is, with minimum expenditure of time and energy. There are two sub-categories: resolution of uncertainty and automatic performance.

5.1 Resolution of uncertainty - The act is performed without hesitation of the individual to get a mental picture of task sequence. That is, he knows the sequence required and so proceeds with confidence. The act is here defined as comples in nature.

5.1 Resolution of uncertainty - Illustrative educational objectives.

Skill in operating a milling machine.

Skill in setting up and operating a production band saw.

Skill in laying a pattern on fabric and cutting out a garment.

5.2 Automatic performance - At this level, the individual can perform a finely coordinated motor skill with a great deal of ease and muscle control.

5.2 Automatic performance - Illustrative educational objectives.

Skill in performing basic steps of national folk dances.

Skill in tailoring a suit.

Skill in performing on the violin.

Further Considerations

A question that needs further investigation is: Does there perhaps exist a sixth major category which might be designated as the adapting or originating domain? Possibly such a level is needed. At this level, the individual might be so skilled that he can adapt the action in terms of the specific requirements of the individual performer and the situation. He might originate new patterns of action in solving a specific problem. Alternatively, do these activities take place at all levels? Must the individual have attained a high degree of skill in order to adapt and originate?

APPENDIX D

Sample Lesson Plans With Behavioral Objectives

Revised Draft
DAY 1

LESSON PLAN AND TEACHER OBJECTIVES	PUPIL OBJECTIVES	REMARKS
I. Introduction Acquaint the class with the immediate surroundings, e.g., interest centers, bulletin boards, the cafeteria, the restrooms, etc. Instill a sense of security. Give the children name tags. Introduce the children to each other.	I. The child will: 1. Repeat the teacher's name 2. Not get lost in the school building. 3. Identify the classroom areas by pointing to or talking about the interest centers, reading areas, and bulletin boards in response to teacher questions.	
II. Nursery rhyme on bulletin board 1. Say and pantomime "Jack and Jill," Humpty Dumpty," and "Mary Had a Little Lamb." Provide the child with physical movement and consequently a sense of security and enjoyment.	II. The child will: 1. Indicate participation by mouthing "Jack and Jill," "Humpty Dumpty," and "Mary Had a Little Lamb."	
III. Rules 1. Discuss school rules (varies with the school).	III. The child will: 1. Exhibit knowledge of school rules by obeying them.	

Revised Draft
DAY 1

LESSON PLAN AND TEACHER OBJECTIVES	PUPIL OBJECTIVES	REMARK
IV. Flag Explain to the children how fortunate they are to live in America and why they should respect the flag. Teach patriotism and respect.	IV. Flag 1. See "Opening Exercises" cover paper.	
V. Finger Plays 1. "Three Balls" (stress for afternoon paper). 2. "Two Turtles" and a Number Finger Game. (See Poems and Finger Play Folder)	V. Finger Plays 1 - 2. The child will demonstrate the ability to follow oral and visual directions by mimicking and repeating the teacher's actions and words of the Finger Plays.	
VI. Rest Time Explain to the children that their bodies require rest, especially after hard work and play. Have the children put their heads down on their desks for ten minutes.	VI. Rest Time 1. The child will put his head down on his desk during rest time.	
VII. Story Time Read a story (story varies with the school)	VII. Story Time 1. The child will not disturb the class by talking or moving about.	

Revised Draft
DAY 1

LESSON PLAN AND TEACHER OBJECTIVES	PUPIL OBJECTIVES	REMARKS
VIII. Seatwork 1. Fingerplay paper. Drama - ball 2. Explain to the children that their names should be on each paper they turn in, and point out that they should copy from the name tags on their desks if necessary.	VIII. Seatwork The child will: 1. Draw three different sized balls with his crayons. 2. Print his own first name.	
IX. Music 1. Introduce the "Mulberry Bush Number Song" (see song folder). 2. Have the children sing "Pretty Trappings" TE, p. 6, Making Music Your own. 3. Have the children sing "Mary Had a Little Lamb."	IX. Music The child will: 1. "Mulberry Bush Number Song" (1) Say and sing the numeral 1. (2) Skywrite the numeral one with the teacher by making a large body movement with his arm. (3) Imitate the teacher as she faces the class and uses the paper with the number in front. 2. "Pretty Trappings" (1) Follow the steady beat of the music by moving the part of the body that the teacher moves, such as the foot, one hand, one shoulder, one eye, and one ear. 3. "Mary Had a Little Lamb" (1) Sing with the teacher.	

Revised Draft
DAY 1

LESSON PLAN AND TEACHER OBJECTIVES	PUPIL OBJECTIVES	REMARKS
X. Closing 1. Help the children recall the activities of the day. Write these activities on the board as dictated by the children. Have the children take the ball paper home.	X. Closing 1. The child will carry the ball paper out of of the classroom.	